1. INTRODUCTION

1.1 Overview

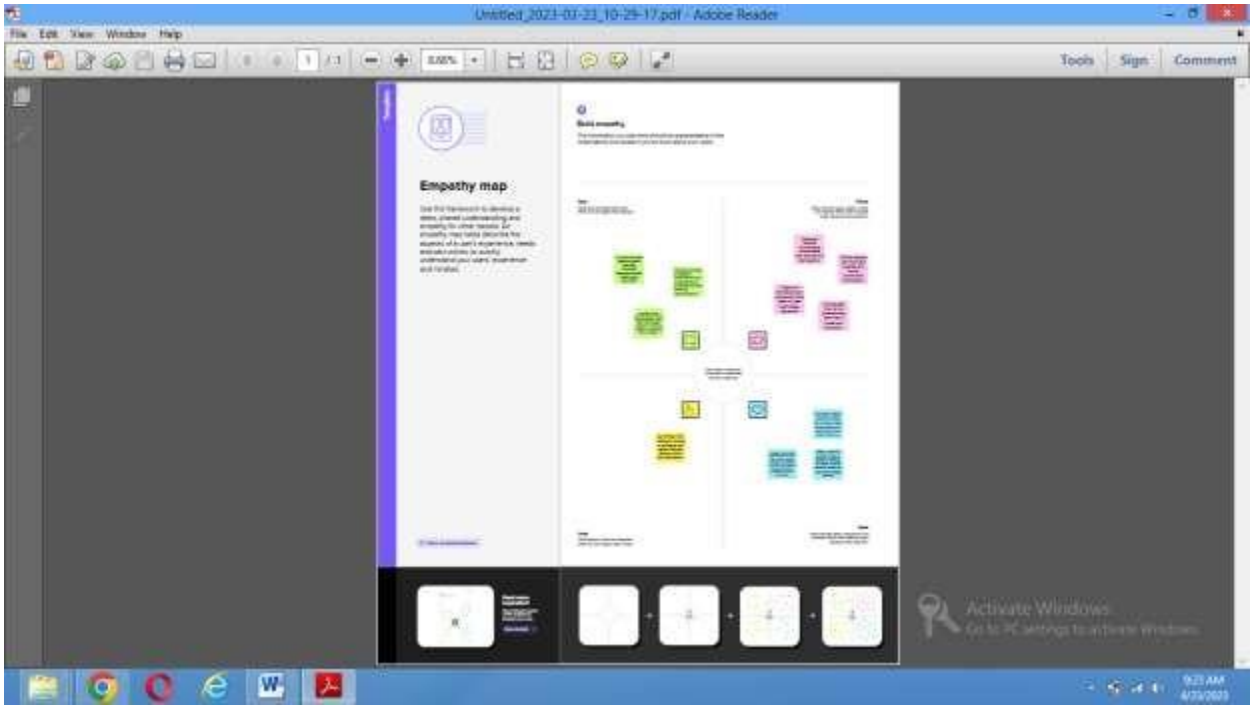
An airplane crash analysis is a detailed investigation into the causes of an aviation accident. The goal of an airplane crash analysis is to identify any factors that contributed to the accident, with the ultimate goal of improving safety and preventing future accidents. The process of conducting an airplane crash analysis typically involves the collection and analysis of a wide range of data, including information about the aircraft and its systems, the operators, and any other relevant factors

1.2 Purpose

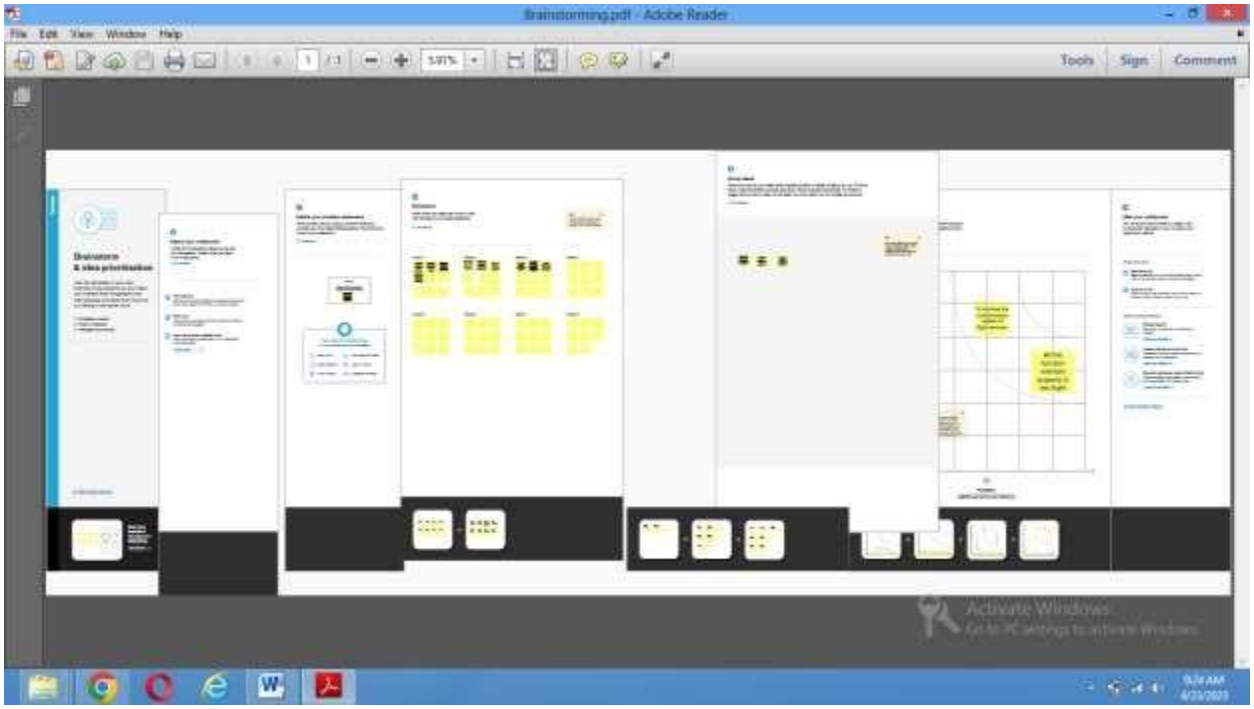
Once the data has been collected, it is analyzed through tableau, to identify any potential causes of the accident. The results of an airplane crash analysis are typically published in a report, which may include recommendations for improving safety and preventing similar accidents in the future. These recommendations may be implemented by the relevant authorities or industry organizations.

2. Problem Definition & Design Thinking

2.1 Empathy Map

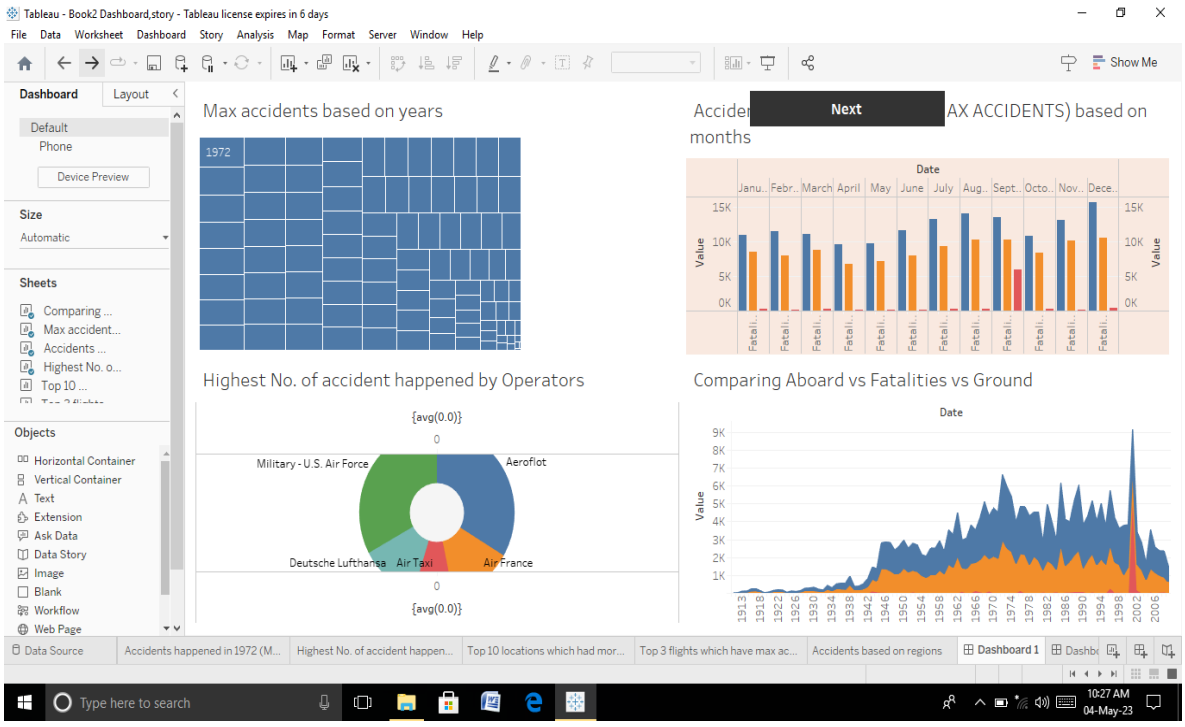


2.2 Ideation & Brainstorming Map



3. RESULT

Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.



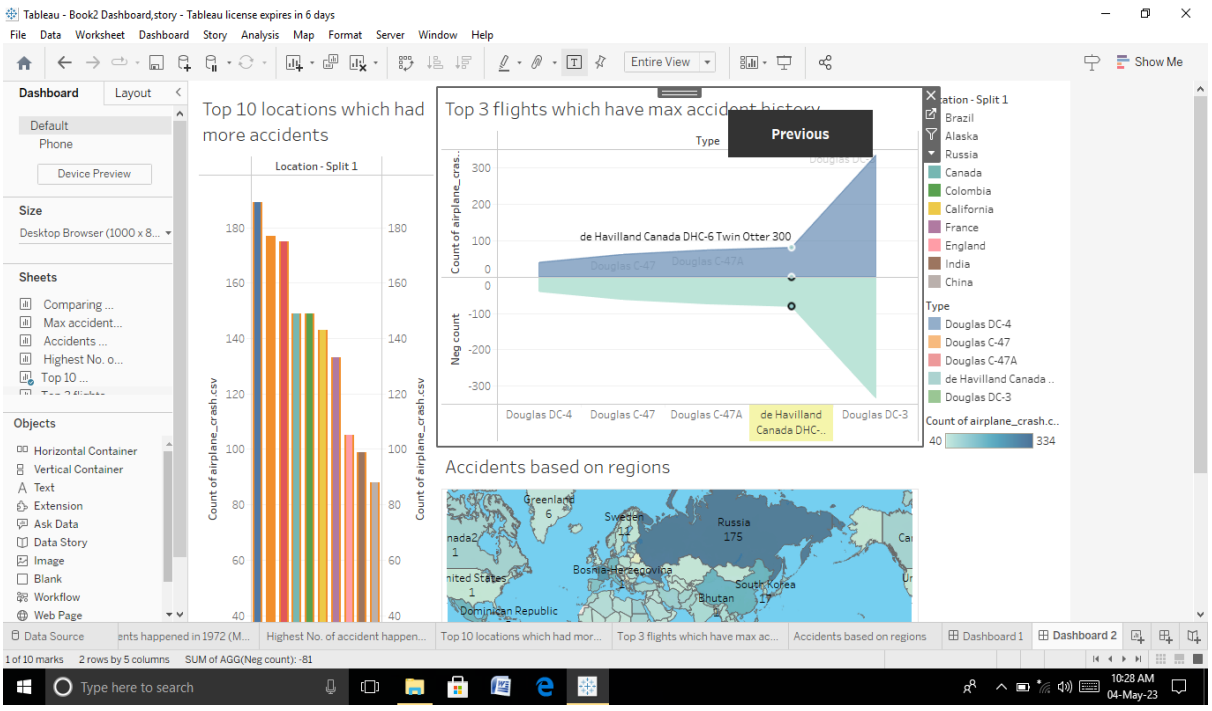


Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Top 10 locations which had more accidents
Location - Split 1
Count of airplane_crash.csv
Top 3 flights which have max accident history
Previous
Type
Count of airplane_cras..
Neg count
de Havilland Canada DHC-6 Twin Otter 300
Douglas C-47
Douglas C-47A
Douglas DC-4
Douglas C-47
Douglas C-47A
de Havilland Canada DHC-..
Douglas DC-3
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
China
Douglas DC-4
Douglas C-47
Douglas C-47A
de Havilland Canada ..
Douglas DC-3
Count of airplane_crash.c..
40
334
Accidents based on regions
Greenland
Sweden
Russia
175
Bosnia Herzegovina
South Korea
Bhutan
Dominican Republic
Dashboard
Layout
Default
Phone
Device Preview
Size
Desktop Browser (1000 x 8...
Sheets
Comparing ...
Max accident...
Accidents ...
Highest No. o...
Top 10 ...
Objects
Horizontal Container
Vertical Container
Text
Extension
Ask Data
Data Story
Image
Blank
Workflow
Web Page
Data Source
Dashboard 1
Dashboard 2
1 of 10 marks
2 rows by 5 columns
SUM of AGG(Neg count): -81
Type here to search
10:28 AM
04-May-23

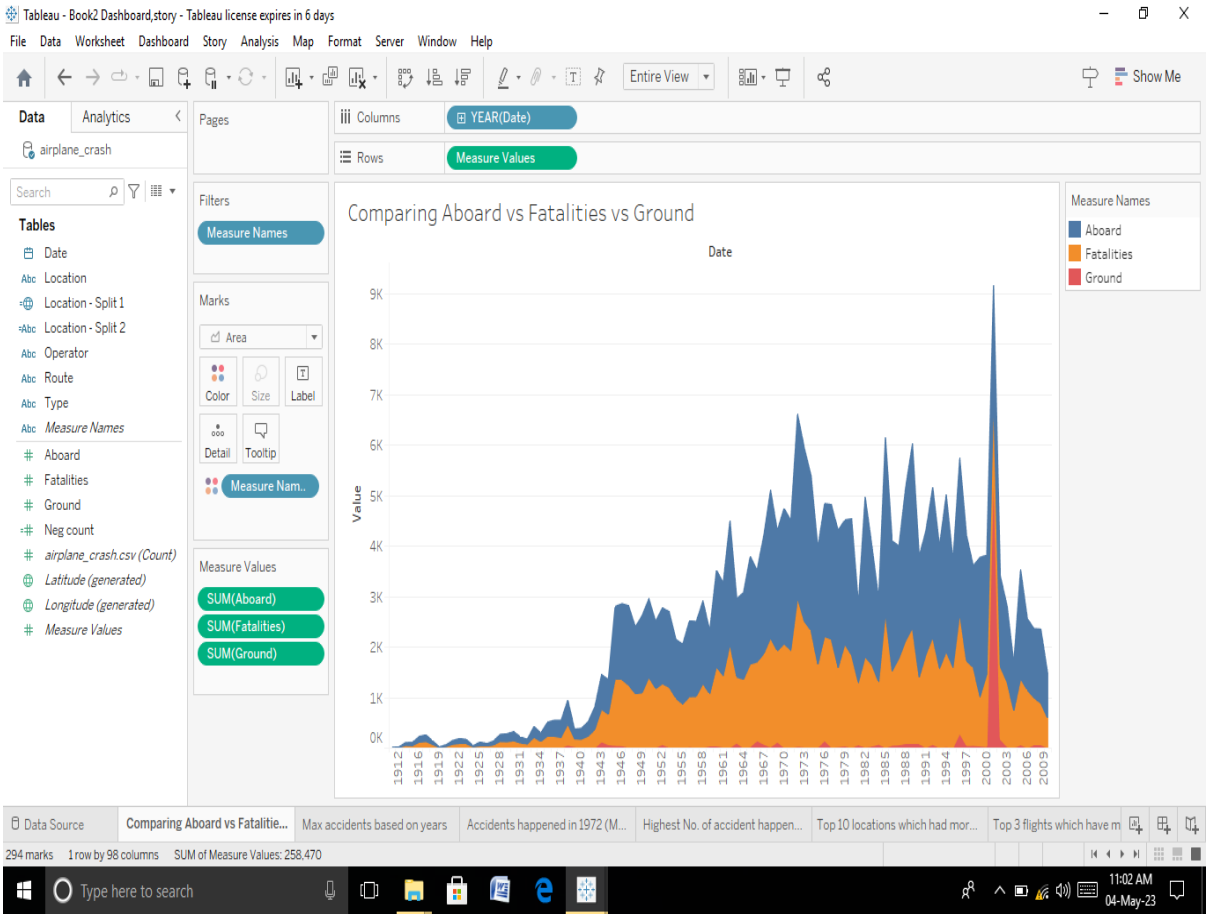


Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Data
Analytics
airplane_crash
Search
Tables
Date
Location
Location - Split 1
Location - Split 2
Operator
Route
Type
Measure Names
Aboard
Fatalities
Ground
Neg count
airplane_crash.csv (Count)
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Filters
Measure Names
Marks
Area
Color
Size
Label
Detail
Tooltip
Measure Nam..
Measure Values
SUM(Aboard)
SUM(Fatalities)
SUM(Ground)
Columns
YEAR(Date)
Rows
Measure Values
Comparing Aboard vs Fatalities vs Ground
Date
Value
Measure Names
Aboard
Fatalities
Ground
Data Source
Comparing Aboard vs Fatalitie...
Max accidents based on years
Accidents happened in 1972 (M...
Highest No. of accident happen...
Top 10 locations which had mor...
Top 3 flights which have m
294 marks
1 row by 98 columns
SUM of Measure Values: 258,470
Type here to search
11:02 AM
04-May-23

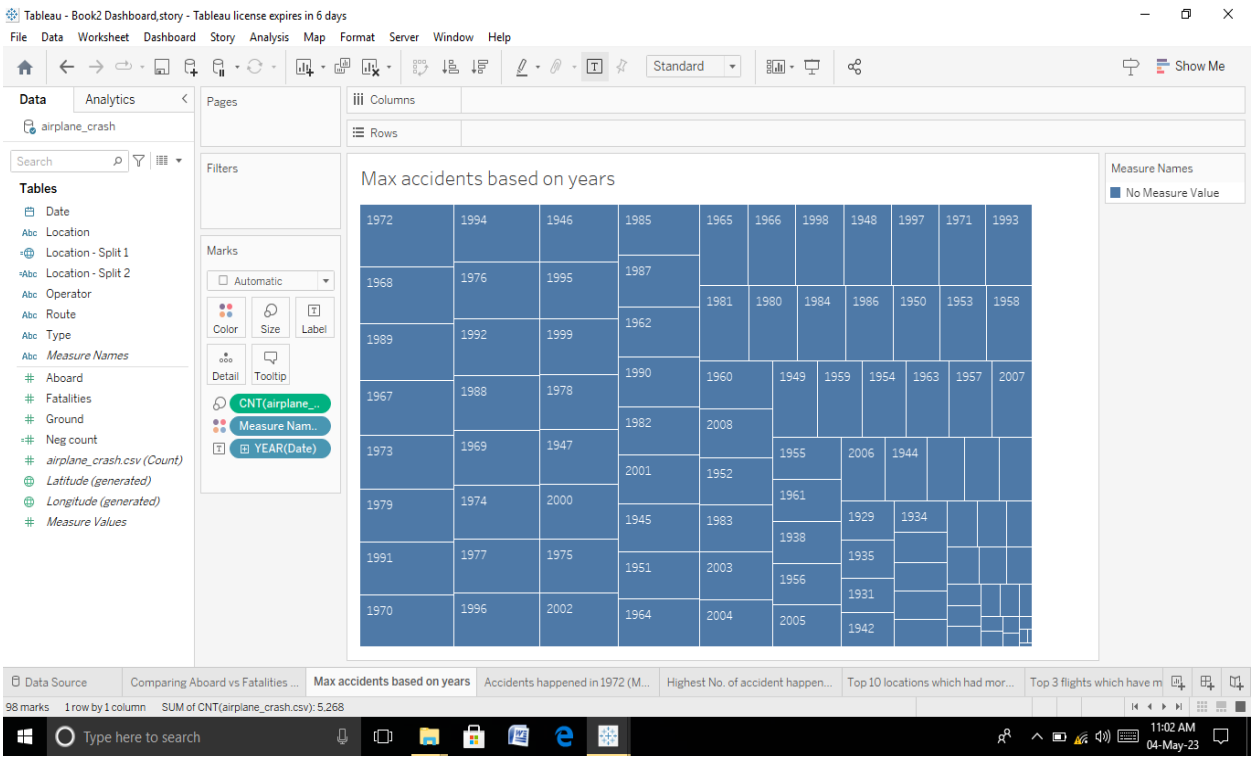


Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Standard
Show Me
Data
Analytics
airplane_crash
Search
Tables
Date
Location
Location - Split 1
Location - Split 2
Operator
Route
Type
Measure Names
Aboard
Fatalities
Ground
Neg count
airplane_crash.csv (Count)
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Columns
Rows
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
CNT(airplane_..
Measure Nam..
YEAR(Date)
Max accidents based on years
1972 1994 1946 1985 1965 1966 1998 1948 1997 1971 1993
1968 1976 1995 1987 1981 1980 1984 1986 1950 1953 1958
1989 1992 1999 1962
1967 1988 1978 1990 1960 1949 1959 1954 1963 1957 2007
1973 1969 1947 1982 2008 1955 2006 1944
1979 1974 2000 2001 1952 1961 1929 1934
1991 1977 1975 1945 1983 1938 1935
1970 1996 2002 1951 2003 1956 1931
1964 2004 2005 1942
Measure Names
No Measure Value
Data Source
Comparing Aboard vs Fatalities ...
Max accidents based on years
Accidents happened in 1972 (M...
Highest No. of accident happen...
Top 10 locations which had mor...
Top 3 flights which have m
98 marks
1 row by 1 column
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04-May-23

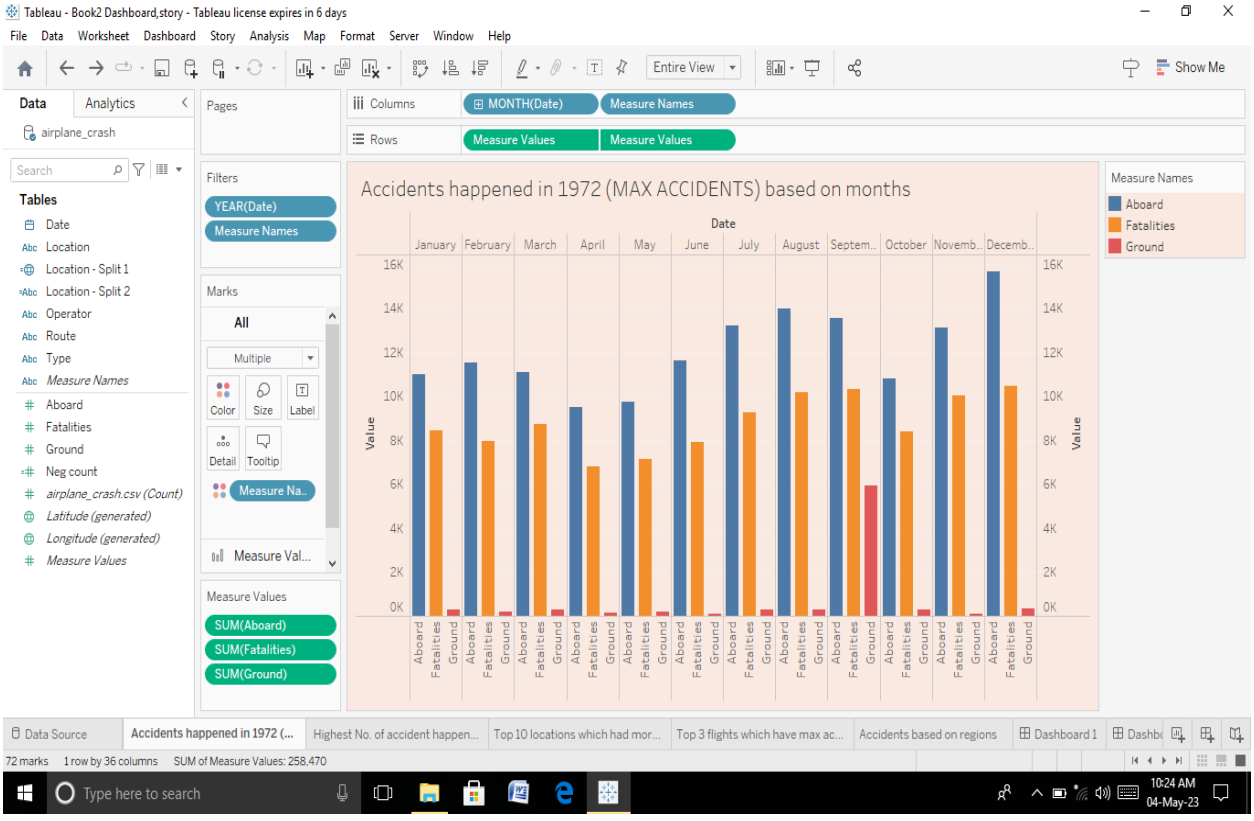
Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Entire View
Show Me
Data
Analytics
airplane_crash
Search
Tables
Date
Location
Location - Split 1
Location - Split 2
Operator
Route
Type
Measure Names
Aboard
Fatalities
Ground
Neg count
airplane_crash.csv (Count)
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Columns
MONTH(Date)
Measure Names
Rows
Measure Values
Measure Values
Filters
YEAR(Date)
Measure Names
Marks
All
Multiple
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Size
Label
Detail
Tooltip
Measure Na..
Measure Val...
Measure Values
SUM(Aboard)
SUM(Fatalities)
SUM(Ground)
Accidents happened in 1972 (MAX ACCIDENTS) based on months
Date
January February March April May June July August Septem.. October Novemb.. Decemb..
Value
16K 14K 12K 10K 8K 6K 4K 2K 0K
Aboard Fatalities Ground
Measure Names
Aboard
Fatalities
Ground
Data Source
Accidents happened in 1972 (...
Highest No. of accident happen...
Top 10 locations which had mor...
Top 3 flights which have max ac...
Accidents based on regions
Dashboard 1
72 marks
1 row by 36 columns
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Type here to search
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04-May-23

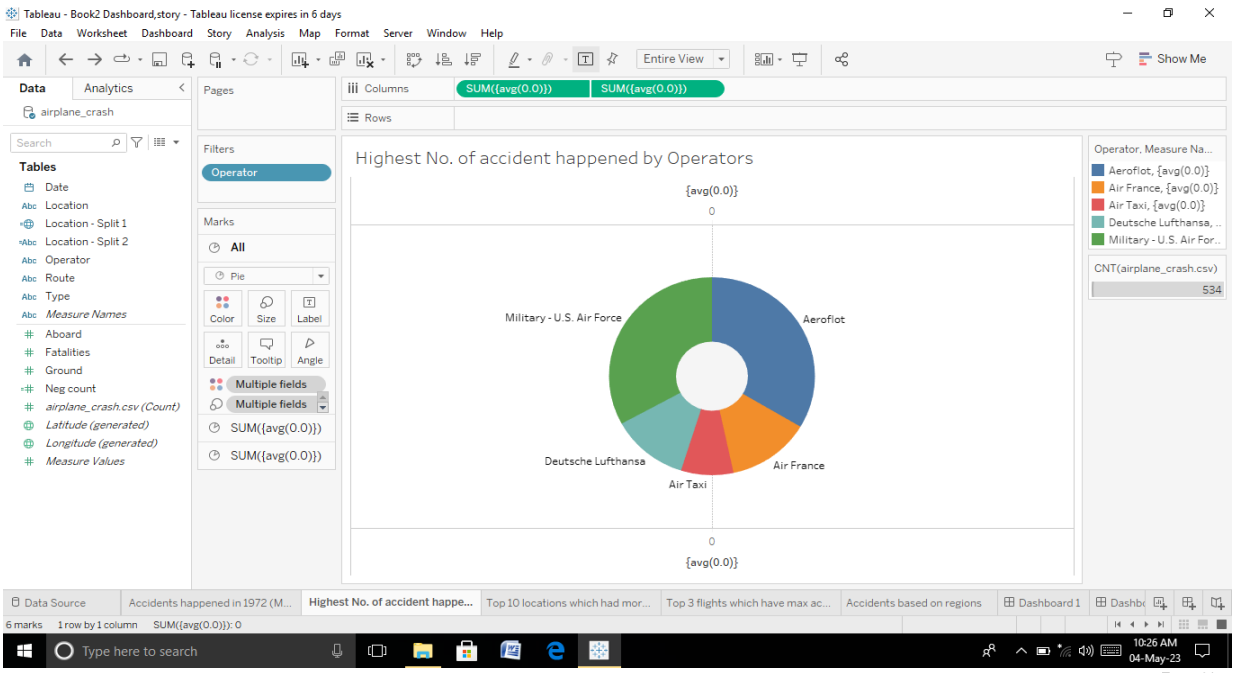
Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Data Analytics
airplane_crash
Tables
Date
Location
Location - Split 1
Location - Split 2
Operator
Route
Type
Measure Names
Aboard
Fatalities
Ground
Neg count
airplane_crash.csv (Count)
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Filters
Operator
Marks
All
Pie
Color
Size
Label
Detail
Tooltip
Angle
Multiple fields
Multiple fields
SUM({avg(0.0)})
SUM({avg(0.0)})
Columns
SUM({avg(0.0)})
SUM({avg(0.0)})
Rows
Highest No. of accident happened by Operators
{avg(0.0)}
0
Military - U.S. Air Force
Aeroflot
Deutsche Lufthansa
Air France
Air Taxi
0
{avg(0.0)}
Operator, Measure Na...
Aeroflot, {avg(0.0)}
Air France, {avg(0.0)}
Air Taxi, {avg(0.0)}
Deutsche Lufthansa, ..
Military - U.S. Air For..
CNT(airplane_crash.csv)
534
Data Source
Accidents happened in 1972 (M...
Highest No. of accident happe...
Top 10 locations which had mor...
Top 3 flights which have max ac...
Accidents based on regions
Dashboard 1
6 marks
1 row by 1 column
SUM({avg(0.0)}): 0
Type here to search
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04-May-23

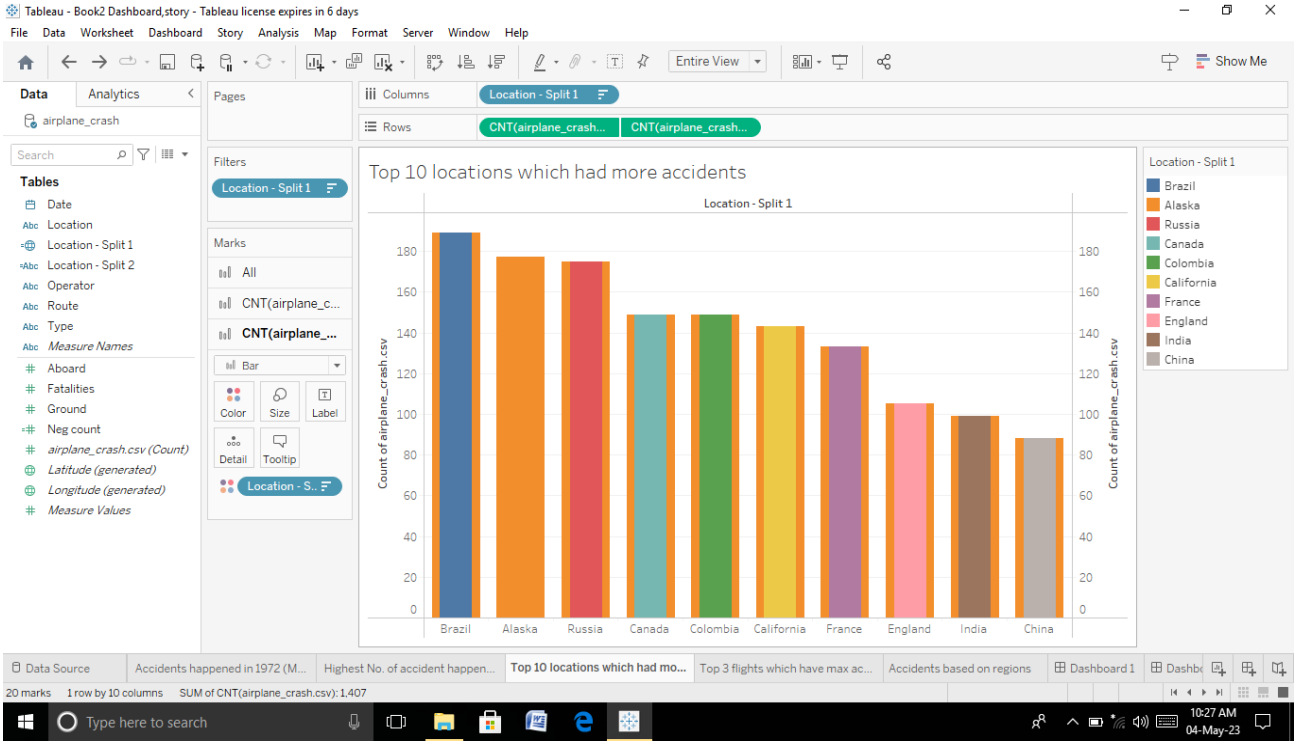
Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Data Analytics
airplane_crash
Tables
Date
Location
Location - Split 1
Location - Split 2
Operator
Route
Type
Measure Names
Aboard
Fatalities
Ground
Neg count
airplane_crash.csv (Count)
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Filters
Location - Split 1
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CNT(airplane_...
Bar
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Detail
Tooltip
Location - S..
Columns
Location - Split 1
Rows
CNT(airplane_crash...
CNT(airplane_crash...
Top 10 locations which had more accidents
Location - Split 1
Count of airplane_crash.csv
180
160
140
120
100
80
60
40
20
0
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
China
Location - Split 1
Brazil
Alaska
Russia
Canada
Colombia
California
France
England
India
China
Data Source
Accidents happened in 1972 (M...
Highest No. of accident happen...
Top 10 locations which had mo...
Top 3 flights which have max ac...
Accidents based on regions
Dashboard 1
20 marks
1 row by 10 columns
SUM of CNT(airplane_crash.csv): 1,407
Type here to search
10:27 AM
04-May-23

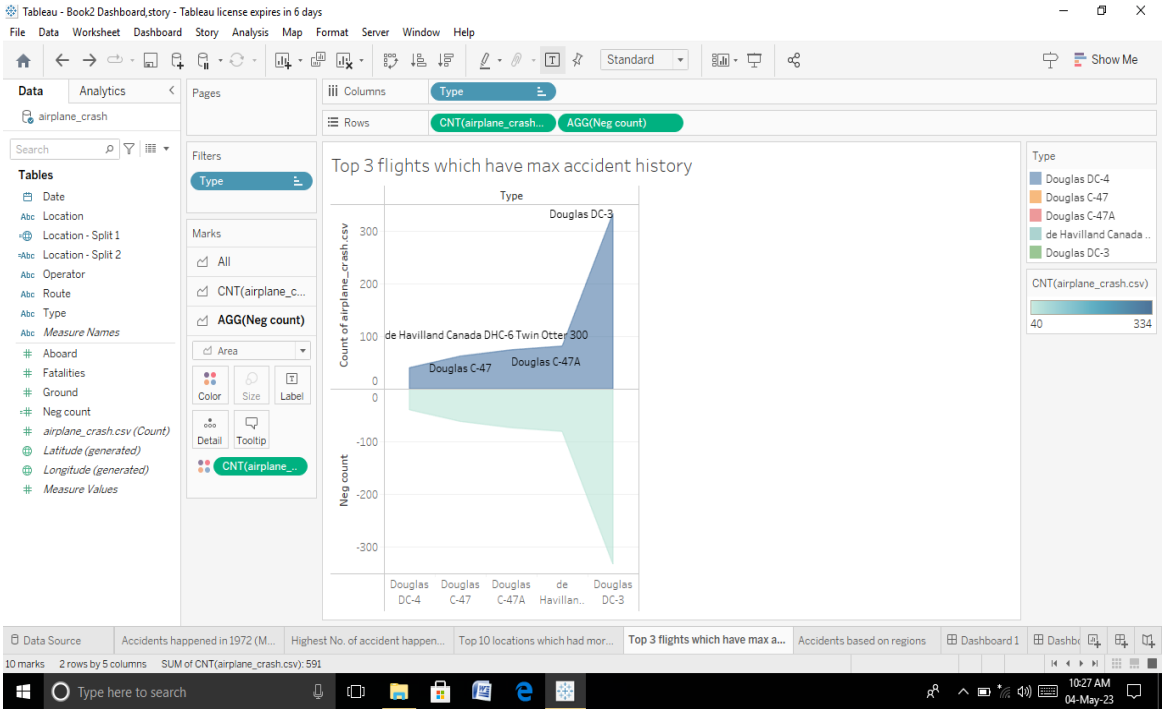


Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Map Format Server Window Help
Data Analytics
airplane_crash
Tables
Date
Location
Location - Split 1
Location - Split 2
Operator
Route
Type
Measure Names
Aboard
Fatalities
Ground
Neg count
airplane_crash.csv (Count)
Latitude (generated)
Longitude (generated)
Measure Values
Pages
Filters
Type
Marks
All
CNT(airplane_c...
AGG(Neg count)
Area
Color
Size
Label
Detail
Tooltip
Columns
Type
Rows
CNT(airplane_crash...
AGG(Neg count)
Top 3 flights which have max accident history
Type
Douglas DC-3
Douglas C-47
Douglas C-47A
de Havilland Canada DHC-6 Twin Otter 300
Count of airplane_crash.csv
Neg count
Douglas DC-4
Douglas C-47
Douglas C-47A
de Havillan..
Douglas DC-3
Type
Douglas DC-4
Douglas C-47
Douglas C-47A
de Havilland Canada ...
Douglas DC-3
CNT(airplane_crash.csv)
40
334
Data Source
Accidents happened in 1972 (M...
Highest No. of accident happen...
Top 10 locations which had mor...
Top 3 flights which have max a...
Accidents based on regions
Dashboard 1
10 marks
2 rows by 5 columns
SUM of CNT(airplane_crash.csv): 591
Type here to search
10:27 AM
04-May-23

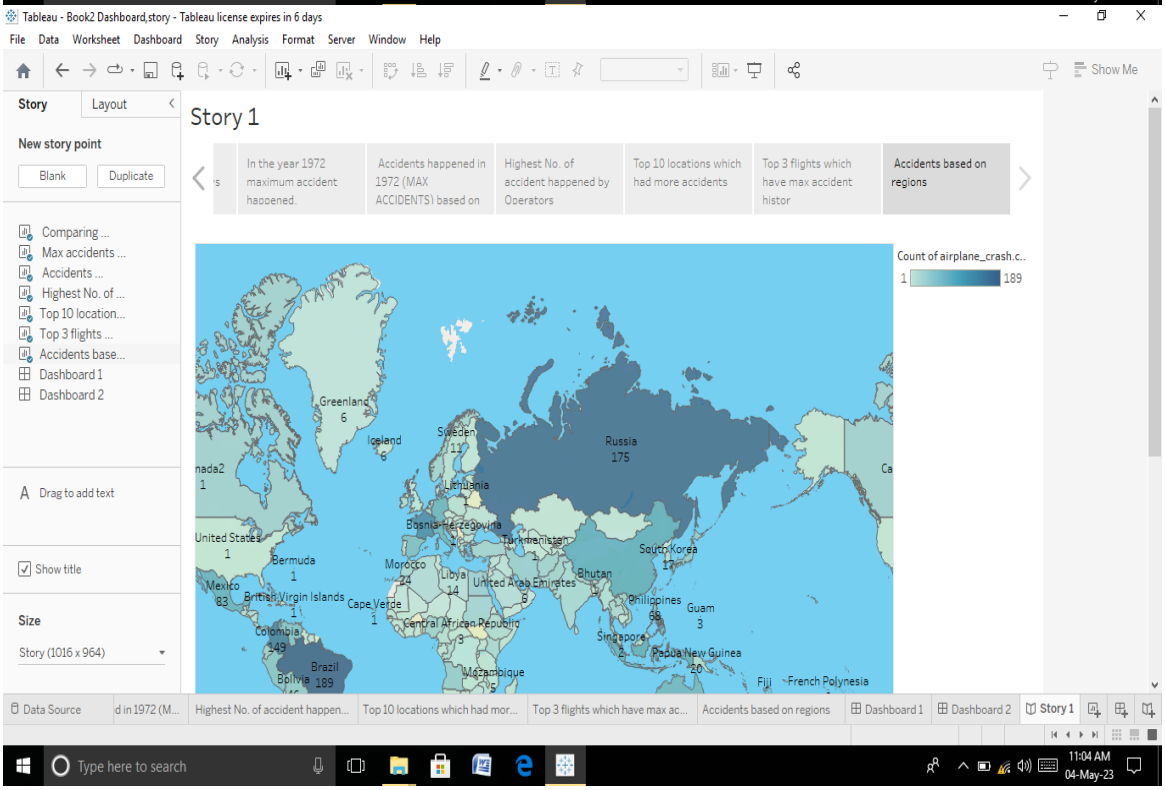
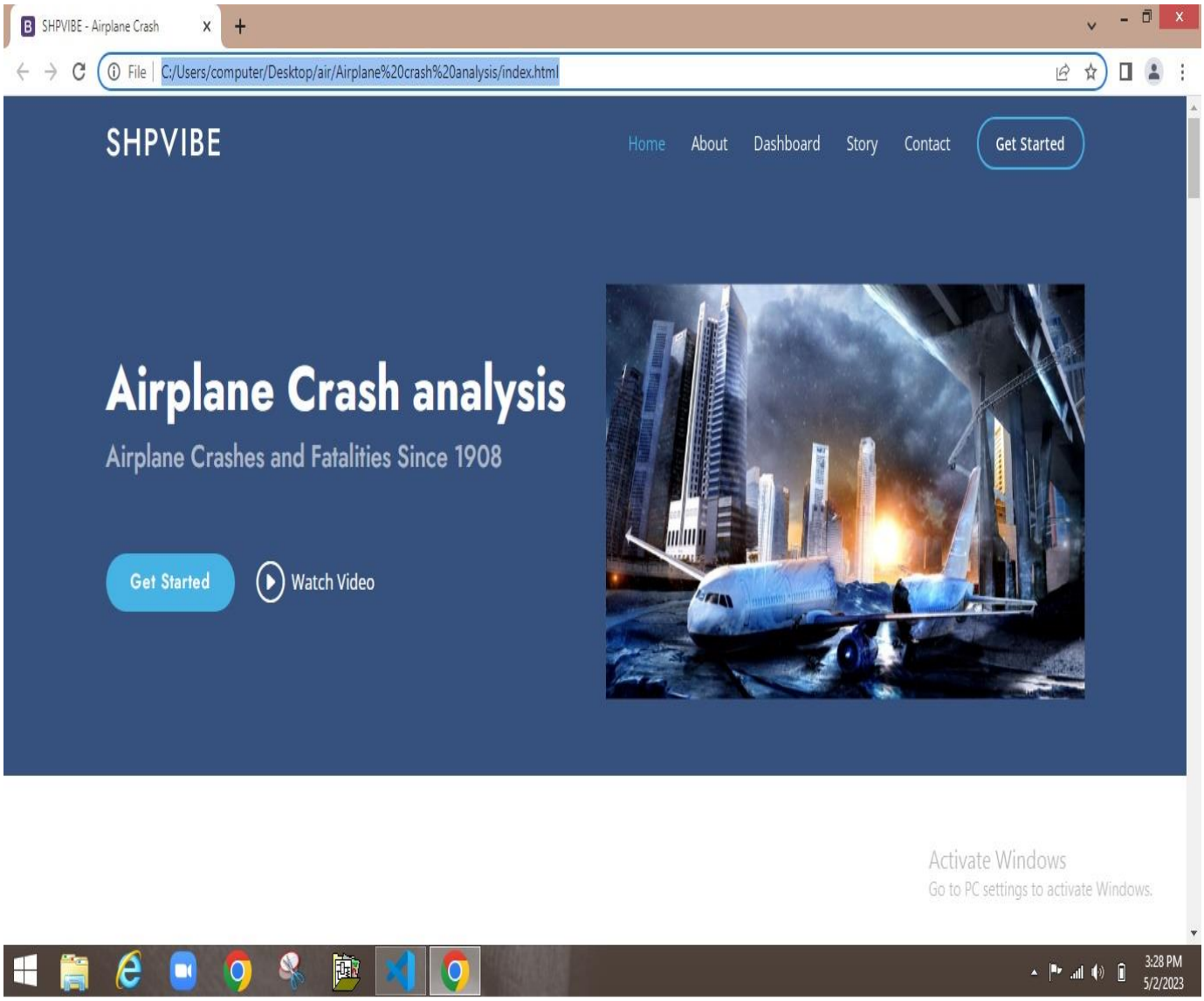


Tableau - Book2 Dashboard,story - Tableau license expires in 6 days
File Data Worksheet Dashboard Story Analysis Format Server Window Help
Story
Layout
New story point
Blank
Duplicate
Comparing ...
Max accidents ...
Accidents ...
Highest No. of ...
Top 10 location...
Top 3 flights ...
Accidents base...
Dashboard 1
Dashboard 2
Drag to add text
Show title
Size
Story (1016 x 964)
Story 1
In the year 1972 maximum accident happened.
Accidents happened in 1972 (MAX ACCIDENTS) based on
Highest No. of accident happened by Operators
Top 10 locations which had more accidents
Top 3 flights which have max accident histor
Accidents based on regions
Count of airplane_crash.c..
1
189
Greenland 6
Iceland 6
Sweden 11
Russia 175
Lithuania 1
Bosnia-Herzegovina 2
Turkmenistan 1
United States 1
Bermuda 1
Morocco 24
Libya 14
United Arab Emirates 8
Bhutan 5
South Korea 12
Mexico 83
British Virgin Islands 1
Cape Verde 1
Central African Republic 3
Philippines 68
Guam 3
Singapore 2
Papua New Guinea 20
Colombia 149
Brazil 189
Bolivia
Mozambique 5
Fiji
French Polynesia
Data Source
Highest No. of accident happen...
Top 10 locations which had mor...
Top 3 flights which have max ac...
Accidents based on regions
Dashboard 1
Dashboard 2
Story 1
Type here to search
11:04 AM
04-May-23



4. **ADVANTAGES & DISADVANTAGES**
    1. **It helps to identify any factors that contributed to the accident**
    2. **The process of conducting an airplane crash analysis typically involves the collection and analysis of a wide range of data, including information about the aircraft and its systems, the operators, and any other relevant factors.**
    3. **The results of an airplane crash analysis are typically published in a report, which may include recommendations for improving safety and preventing similar accidents in the future.**

5. **APPLICATIONS**

The goal of an airplane crash analysis is to identify any factors that contributed to the accident, with the ultimate goal of improving safety and preventing future accidents. The process of conducting an airplane crash analysis typically involves the collection and analysis of a wide range of data, including information about the aircraft and its systems, the operators, and any other relevant factors.

6. CONCLUSION

The process of conducting an airplane crash analysis typically involves the collection and analysis of a wide range of data, including information about the aircraft and its systems, the operators, and any other relevant factors. It really helps to identify any factors that contributed to the accident.

7. FUTURE SCOPE

The results of an airplane crash analysis are typically published in a report, which may include recommendations for improving safety and preventing similar accidents in the

future. These recommendations may be implemented by the relevant authorities or industry organizations.